Design of a Web-based Information System for Assessing Age Ratings in Video Games Using the Knn Method: Case Study of Determining the Suitability of Games for Children or Adults

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ABSTRACT

The development of digital technology has changed the form of game media that used to be traditional now everything has become digital, with various types of games that are now easily accessible to all groups, including children. The content in video games itself is sometimes not suitable for all ages, so it is important to have a classification system that is able to assess the suitability of game content for the age of its users. In Indonesia itself, there are rules governing the age classification of video games, the Minister of Communication and Information Technology Regulation Number 2 of 2024 is present as a guideline for game classification. This research aims to develop a web-based video game age rating classification system using K-Nearest Neighbors (K-NN), utilizing data from users and the ESRB database. The system provides age classification: 3+, 7+, 13+, 18+, and All Ages. Test results show that the system was successfully implemented with an accuracy of 95.43%, and consistent precision and recall for each category. Thus, this system is considered feasible to be used as a tool in determining the appropriate age classification for the video games played by users, so that it can help users make wiser decisions.

__Keywords:__ Age Classification, Video Games, K-Nearest Neighbors (K-NN), Web-Based System, Game Rating, Game Content, ESRB.